

Amendments to Claims

1. (currently amended) A binder for electrode materials which comprises fibrillatable tetrafluoroethylene based polymer fine particles having an average particle size of not more than about 0.20 μm and having a standard specific gravity of not more than about 2.20, wherein a mixture prepared from said fine particles with about 17% by weight of the total mixture of an extrusion lubricant coagent, when subjected to the measurement of an extrusion pressure by a rheometer, exhibits under the conditions of a draw ratio of 100 to 1 and an extrusion speed of 18 ± 2 mm/min, an extrusion pressure of not less than about 220 kg/cm².

2. (currently amended) A binder for electrode materials as set forth in Claim 1, wherein said tetrafluoroethylene based polymer is polytetrafluoroethylene or a copolymer of tetrafluoroethylene with at least one comonomer selected from the group consisting of fluoro(alkyl vinyl ethers) represented by formula $\text{CF}_3-(\text{CF}_2)_n-\text{O}-\text{CF}=\text{CF}_2$ (where n is 0, 1, or 2), hexafluoropropylene, and ~~perfluorobutylethylene~~ perfluorobutyl ethylene.

3. (original) A binder for electrode materials as set forth in Claim 1, wherein said tetrafluoroethylene based polymer has an average particle size of about 0.10 to about 0.18 μm .

4. (original) A binder for electrode materials as set forth in Claim 1, wherein said tetrafluoroethylene based polymer has a standard specific gravity of about 2.12 to about 2.19.

5. (original) A binder for electrode materials as set forth in Claim 1, wherein said tetrafluoroethylene based polymer has an extrusion pressure of about 270 kg/cm² or greater.

6. (currently amended) A process for making an electrode comprising:
mixing electrode materials with a binder to form an electrode/binder mixture, said binder comprising fibrillatable tetrafluoroethylene based polymer fine particles having an average particle size of not more than about 0.20 μm and having a standard specific gravity of not more than about 2.20, said mixing causing fibrillation of said fine particles to enhance the binding strength of said binder with said electrode material, wherein a mixture prepared from said fine particles with about 17% by weight of the total mixture of an extrusion lubricant coagent, when subjected to the measurement of an extrusion pressure by a rheometer, exhibits under the conditions of a draw ratio of 100 to 1 and an extrusion speed of 18 ± 2 mm/min, an extrusion pressure of not less than about 220 kg/cm²; and
molding said electrode/binder mixture into ~~an~~ a said electrode.

7. (currently amended) A process for making an electrode as set forth in Claim 6, wherein said tetrafluoroethylene based polymer is polytetrafluoroethylene or a copolymer of tetrafluoroethylene with at least one comonomer selected from the group consisting of fluoro(alkyl vinyl ethers) represented by formula $\text{CF}_3-(\text{CF}_2)_n-\text{O}-\text{CF}=\text{CF}_2$ (where n is 0, 1, or 2), hexafluoropropylene, and ~~perfluorobutylethylene~~ perfluorobutyl ethylene.

8. (original) A process for making an electrode as set forth in Claim 6, wherein said tetrafluoroethylene based polymer has an average particle size of about 0.10 to about 0.18 μm .

9. (original) A process for making an electrode as set forth in Claim 6, wherein said tetrafluoroethylene based polymer has a standard specific gravity of about 2.12 to about 2.19.

10. (new) An electrode made by the process of claim 1.